

REMARKS

Claims 10 to 18 are now pending. Claim 10 has been amended. Strikeouts indicate deletions, underlining indicates additions. No new matter has been added.

Applicants respectfully request reconsideration of the present application in view of this response.

35 U.S.C. § 112, second paragraph

Claims 10 to 18 were rejected under 35 U.S.C. § 112, second paragraph, because claim 10 appeared indefinite. Applicants thank the Examiner for noticing the minor error and have corrected that above in claim 10 as suggested by the Examiner. No new matter has been added. Accordingly, Applicants respectfully submit that claims 10 to 18 are allowable; and withdrawal of the rejected of those claims under 35 U.S.C. § 112, second paragraph is respectfully requested.

35 U.S.C. § 103(a) – Mueller and Weinberg references

Claims 10, 11, 13 to 16 and 18 were rejected under 35 U.S.C. § 103(a) as unpatentable by “Application of Amplitude Histograms for Quality of Service Measurements of Optical Channels and Fault Identification,” by Mueller et al. (“Mueller reference”) in view of U.S. Patent No. 5,144,642 to Weinberg et al. (“Weinberg reference”).

Applicants respectfully submit that the Mueller and Weinberg references, taken alone or in combination, do not render obvious the claimed inventions in claims 10, 11, 13 to 16 and 18.

The Mueller reference purportedly concerns a method for the characterization of channel quality based on the evaluation of amplitude histograms generated by asynchronous sampling, enabling estimation of the bit error ratio and identification of the source of perturbation. Abstract.

The Weinberg reference purportedly concerns a system of interference detection and characterization of subtle and brute force jammers, by allowing the jammers no physical parameter to alter without being detected. Col. 2, lines 26-35. The Weinberg reference further refers to interference mitigation for jammers once they have been fully characterized, the effects of the interference being removable and a signal equivalent to the noncorrupted version is recoverable. Col. 2, lines 36-41. The Weinberg reference characterization system to automatically detect the presence of communications channel irregularities in near real-

time and alert the attending operator. Abstract. The Weinberg reference refers to information provided to the operator through a user-friendly interface being used to characterize the operator to take corrective actions including the activation of alternative communication plans or mitigation of the interference, processing data containing amplitude, phase, and frequency information that has been coherently extracted from a desired signal's demodulated data.

Abstract. The Weinberg reference further refers to a signal being processed via a “unique combination” of three simultaneous processors to yield “signal signature information,” the hardware generated data being provided to a computer which may alert an operator to the presence of non-nominal channel conditions. Abstract.

Claim 10 is directed to a method for monitoring transmission quality of an optical signal in an optical transmission system, requiring plotting an amplitude histogram of the optical signal transmitted over the optical transmission system; classifying the amplitude histogram of the optical signal according to at least one of bit error rates and fault causes by acquiring input data from the amplitude histogram, feeding the input data to a neural network, generating at least one output value from the input data, and assigning the at least one output value to at least one of: the bit-error rates of the optical signal; and the fault causes of the optical signal. The Mueller and Weinberg references do not teach all of the features of claim 10 in the manner described.

Accordingly, Applicants respectfully submit that claim 10 is allowable because the Mueller and Weinberg references in combination do not describe each and every feature of claim 10. Withdrawal of the rejection of claim 10 under 35 U.S.C. § 103(a) over the Mueller reference in view of the Weinberg reference is respectfully requested.

Claims 11 to 18 depend from claim 10 and are thus allowable for at least the same reasons as claim 10.

Applicants thank the Examiner for noting that claims 12 and 17 would be allowable if rewritten to overcome any 35 U.S.C. § 112, second paragraph, rejections. Those rejections have been addressed above; accordingly Applicants respectfully request allowance of the application.

Accordingly, it is respectfully submitted that all of claims 10 to 18 are allowable for at least the foregoing reasons.

CONCLUSION

In view of all of the above, it is believed that the rejections of claims 10 to 18 should

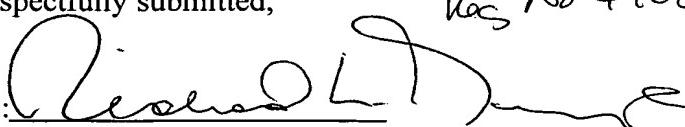
be withdrawn, and that claims 10 to 18 be deemed allowable. It is therefore respectfully requested that the present application issue as early as possible.

If a telephone interview would assist in furtherance of allowance of the present application, the Examiner is encouraged to contact the undersigned at the number below.

Dated: Jan. 6, 2005

Respectfully submitted,

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